

IN THE CLAIMS:

The following is a complete listing of the claims, reflects all changes currently being made thereto, and replaces all earlier versions and listings:

1. - 40. (canceled).

41. (new): A color conversion method of converting a monochrome signal into a color space color signal on a color space independent of an apparatus, comprising the steps of:

setting a tint adjustment value used to adjust the monochrome signal to a desired tint desired by a user;

acquiring color reproduction characteristics dependent on an image output apparatus and a recording medium;

converting the monochrome signal into a chromaticity signal of the color space using the tint adjustment value set in the setting step and the color reproduction characteristics acquired in the acquiring step; and

forming a color space color signal from the chromaticity signal converted in the converting step and a brightness signal according to the monochrome signal, and outputting the color space color signal,

wherein, in the converting step, the monochrome signal is converted so as to map chromaticity points of black print color and white print color depending on the image output apparatus and the recording medium, and map a chromaticity point of the tint adjustment value for middle lightness excepting neighborhoods of black print color and white print color.

42. (new): The method according to claim 41, wherein, in the acquiring step, the color reproduction characteristics is acquired from a profile of the image output apparatus.

43. (new): The method according to claim 41, wherein, in the setting step, the chromaticity point for adjusting the monochrome signal is set as the tint adjustment value.

44. (new): The method according to claim 43, wherein the chromaticity point is set in a predetermined range in the setting step.

45. (new): The method according to claim 41, wherein, in the converting step, the monochrome signal is converted into a chromaticity point determined by a rate of change in the neighborhoods of black print color and white print color.

46. (new): A color conversion apparatus for converting a monochrome signal into a color space color signal on a color space independent of an apparatus, comprising:

a setting unit that sets a tint adjustment value used to adjust the monochrome signal to a desired tint desired by a user;

an acquisition unit that acquires color reproduction characteristics dependent on an image output apparatus and a recording medium;

a conversion unit that converts the monochrome signal into a chromaticity signal of the color space using the tint adjustment value set in the setting step and the color reproduction characteristics acquired in the acquisition unit; and

a forming and outputting unit that forms a color space color signal from the chromaticity signal converted in the converting step and a brightness signal according to the monochrome signal, and outputs the color space color signal,

wherein the converting unit converts the monochrome signal so as to map chromaticity points of black print color and white print color depending on the image output apparatus and the recording medium, and map a chromaticity point of the tint adjustment value for middle lightness excepting neighborhoods of black print color and white print color.

47. (new): The apparatus according to claim 46, wherein the acquiring unit acquires the color reproduction characteristics from a profile of the image output apparatus.

48. (new): The apparatus according to claim 46, wherein the setting unit sets the chromaticity point for adjusting the monochrome signal as the tint adjustment value.

49. (new): The apparatus according to claim 48, wherein the chromaticity point is set in a predetermined range by the setting unit.

50. (new): The apparatus according to claim 46, wherein the monochrome signal is converted into a chromaticity point determined by a rate of change in the neighborhoods of black print color and white print color.

51. (new): A computer readable recording medium, storing, in executable form, a computer program for causing a computer to execute the color conversion method according to claim 41.